

WHAT IS CLAIMED IS:

1. A storage area network associated data library partitioning system comprising:
a plurality of storage slot elements adapted to store data storage media, at least one set
of at least one of said slots is assigned to one partition of a plurality of partitions;

5 a plurality of data transfer elements that are adapted to receive said media and transfer
data to and from said media, each of at least one set of at least one of said data transfer
elements is assigned to one of said partitions, at least one data transfer element of each of said
partitions hosts a logical element designation of a virtual controller for each of said partitions,
said virtual controllers restricting movement of said media to between said set of slots and
said set of data transfer elements assigned to a same of said partitions.

2. The system of claim 1 wherein at least one of said partitions is secured and
access to a particular one of said secured partitions is restricted to users of said library having
a unique host device identifier that is listed in a list of unique host device identifiers for
access to said particular partition.

3. The system of claim 2 wherein a blank listing of unique host device identifiers
for a secured partition results in said secured partition being secured from access by any
users.

4. The system of claim 2 wherein said list of unique host device identifiers is
maintained by at least one data transfer element in each of said partitions.

5. The system of claim 2 wherein said unique host device identifiers are world
wide names.

6. The system of claim 2 wherein said unique host device identifiers are iSCSI
names.

7. The system of claim 1 wherein at least one of said partitions is unsecured
allowing access to said unsecured partitions by any user of said library.

8. The system of claim 1 wherein at least one of said elements is disabled and said at least one disabled elements may not be accessed by any users.

9. The system of claim 1 wherein said data transfer elements are fiber channel connected data tape drives.

10. The system of claim 1 wherein said logical element designations are small computer systems interface logical unit numbers.

11. The system of claim 10 wherein said virtual controller logical unit numbers are arranged under a small computer systems interface identification of said library.

12. A method for partitioning a storage area network associated data library comprising:

establishing a plurality of partitions in said data library, each of said partitions comprising at least one storage slot element and at least one data transfer element, each of said slots adapted to store media, and each of said data transfer elements adapted to receive said media and transfer data to and from said media;

assigning a different logical element designation to each of said library partitions and assigning a same logical element designation as a partition to a virtual controller hosted by at least one of said data transfer elements in said partition; and

restricting movement of said media to between said slots and said data transfer elements assigned to a same partition.

13. The method of claim 12 further comprising:

securing selected ones of said partitions by assigning a list of unique host device identifiers which may access each of said partitions.

14. The method of claim 13 further comprising:

maintaining said list of unique host device identifiers that may access a partition in at least one of said data transfer elements in said partition.

15. The method of claim 13 further comprising:
securing selected ones of said partitions by allowing no users to access a partition
having a blank list of unique host device identifiers.

16. The method of claim 12 further comprising :
disabling at least one of said elements; and
preventing access to said at least one disabled elements by any user.

17. The method of claim 12 wherein said logical element designations are small
computer systems interface logical unit numbers.

18. A partitioned storage area network with an associated data library, said
network comprising:
a data storage array that is divided into partitions, each of said partitions assigned a
logical unit number;
data-mover interconnectivity that extends between said data storage array and said
associated data library, via at least one bridge;
a library management interface that accepts user input partitioning said library and
assigns a logical unit number corresponding to logical unit numbers of said array partitions to
library partitions, each of said library partitions comprising:
a set of at least one storage element slot, each slot comprised of a plurality of
storage element slots, said slots are adapted to store data storage media; and
a set of at least one data transfer element, said data transfer elements are
adapted to receive said media and transfer data to and from said media, at least one
data transfer element in each of said partitions comprising a virtual controller that
restricts movement of said media to between said set of slots and said set of data
transfer elements assigned to a same partition; and
at least one data mover for direct communication from said array to said library.

19. The network of claim 18 wherein said partitions are secured by assigning each
of said partitions a list of unique host device identifiers which may access that partition.

20. The network of claim 19 wherein said list of unique host device identifiers for a partition is maintained by at least one of said data transfer elements in that partition.

21. The network of claim 19 wherein said unique host device identifiers are world wide names.

22. The network of claim 19 wherein said unique host device identifiers are iSCSI names.

23. The network of claim 18 wherein at least one of said elements is disabled and said at least one disabled elements may not be accessed by any users.

24. The network of claim 18 wherein at least one of said data movers is disabled and said disabled data movers may not be accessed by any users.